

AIRPORT NOISE MANAGEMENT PLAN
Version 7 December 2003

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INTRODUCTION

This Airport Noise Management Plan has been prepared by Palmerston North Airport Ltd (PNAL) in consultation with Palmerston North City Council (PNCC) and Manawatu District Council (MDC), to satisfy the requirements of Rule 20.4.9.2 of the Palmerston North City District Plan relating to the preparation of an Airport Noise Management Plan for Palmerston North International Airport. The Plan Rules in both the Palmerston North City and Manawatu District Plans in relation to Airnoise issues have been based on the following documents prepared by Airplan for PNAL, and which form part of this Plan:

- 1993 Airnoise Study Report (dated August 1993), and
- 1998 Airnoise Report Addendum (May 1998), based on Scenario B2 v3.0 dated February 1998.

This Plan addresses the following issues:

- A. Compliance Monitoring
 - Purpose
 - Responsibilities
 - Reporting
 - Frequency
 - Method
 - Actions arising
- B. Aircraft Noise Management
 - Procedures to minimise noise impacts
- C. Complaints Procedures
 - Purpose
 - Responsibilities
 - Method
 - Actions arising

A COMPLIANCE MONITORING

1. Purpose

The purpose of the compliance monitoring shall be to ensure that the assumptions on which the Noise Boundaries were determined remain valid. The recording, reporting, and review process set out in this Plan is the means to :

- 1.1. Determine compliance with the District Plan provisions
- 1.2. Validate the compatible land use planning of land surrounding the airport
- 1.3. Provide a basis for evaluating sound reduction measures and review of the boundaries in accordance with clause 1.6 of NZS 6805:1992.

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2. Responsibilities

PNAL shall be responsible for the collection and analysis of aircraft movement data on which the compliance monitoring shall be based.

3. Six (6) Monthly Reporting

3.1 PNAL shall provide PNCC and MDC with 6 monthly reports on actual aircraft movement data in a form similar to the table below:

Overall Summary of Arrivals and Departures (6 months)

Aircraft Type ⁽¹⁾	Arrivals			Departures			Total
	Day	Night	Total	Day	Night	Total	Total
B737							
BAe146							
Total							

Note (1)

The aircraft types will be aggregated into representative groups with similar noise characteristics (relating to type of propulsion (jet, turboprops etc.) number of engines, weight, etc.) and separately identify military combat jet aircraft movements

3.2 If in any 6 month period any one of the following conditions occurs, then more detailed analysis shall be undertaken by PNAL as detailed in Section A4 :

- Total night movements > 80% of forecast*
- Total aircraft movements > 80% of forecast*
- Total jet movements > 80% of forecast*
- Assumed runway usage > 40% from forecast* runway usage split

* **“forecast”** is the forecast for 2047 as documented for the 1998 Airnoise Report Addendum (Scenario B2 v3.0 dated Feb 1998, attached to this Plan).

4. Detailed Monitoring

4.1 PNAL shall undertake detailed monitoring of the noise impact of actual operations at intervals of not less than 3 calendar years, however this interval may be extended where PNAL assesses the actual movements of aircraft as highly unlikely to have exceeded the original assumptions, subject to PNCC agreement with that assessment. The first review scheduled for 2001 has been delayed accordingly, and is now scheduled for the 2005 calendar year.

4.2 Where a detailed monitoring review is undertaken pursuant to 4.1 above, each actual flight over a representative six-week period shall be recorded. The record for each flight shall include the following details:

- Aircraft type
- Runway used
- Arrival or departure
- Time of day (Day or Night)

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- Origin / Destination (for determination of flight paths)¹
- 4.3 The data collected from the six-week period shall be used as input for calculation of the Actual Average Daily Noise Contour for the period using the Integrated Noise Model (INM). Plots shall be produced, by suitably qualified personnel, of the 55, 60 and 65 Ldn contours and compared with those assumed in determination of the Noise Boundaries in the District Plans.
- 4.4 The results shall be presented in a report of appropriate format for submission to PNCC and MDC.
- 4.5 A review of the location of the Noise Boundaries should be considered if it appears that current or future operations would result in sound exposures more than 3 dB above those on which the District Plan is based. The review shall follow the steps set out in 1.4.3 and 1.4.4 of NZS 6805:1992.

B Aircraft Noise Management

1. Procedures to minimise noise impacts

1.1. Noise Abatement

PNAL shall promote voluntary compliance by operators with Noise Abatement procedures with the objective that emission of noise from aircraft operating in close proximity to the airport and the urban environment of Palmerston North city is kept as low as possible, consistent with safety. PNAL shall seek adoption of such procedures by the Civil Aviation Authority.

These procedures include;

- 1.1.1. Circuits left-hand for main runway 07 and right-hand for runway 25.
- 1.1.2. Between the hours of 2230 and 0700 local time jet and turbo-prop powered aircraft shall on departure from runway 25 not commence a left turn within 4 nautical miles of the airport; and on departure from runway 07 not commence a right turn by visual reference below an altitude of 1,500ft.
- 1.1.3. Between the hours of 2230 and 0700 local time aircraft shall not operate at an altitude of less than 3,000ft over the Palmerston North urban area between the extended runway centreline and the Manawatu River except during approach and takeoff from the runway.

1.2. Noise Management Strategy

¹ In consultation with the Operators and Air Traffic Service Providers, the indicative flight paths used by various aircraft types enroute to / from various destinations shall be plotted. Using Origin and Destination data recorded for each aircraft movement the allocation of traffic onto tracks for determination of the Ldn contours using the INM shall be made.

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To facilitate a cooperative approach to managing local airport noise issues, PNAL will convene an 'Airport Noise Liaison Committee' if deemed necessary by either PNAL or PNCC. Representatives of the following or their equivalents shall be invited to participate on the committee:

- Community representatives appointed by Palmerston North City Council and Manawatu District Council
- Aircraft and airline operators
- Airways Corporation of NZ
- Palmerston North City Council
- Manawatu District Council
- NZ Defence Force
- PNAL

The primary functions and activities of the Committee shall be:

- Promotion of communication and understanding between all parties
- Advising on complaints handling procedures to avoid the escalation of disputes and ensure their efficient management
- Receipt and review of complaints reports
- Seek to establish and use mediative methods of resolving complaints so as to avoid escalation of problems

PNCC, MDC and PNAL shall fund the costs associated with the functioning of the 'Airport Noise Liaison Committee' jointly and equally.

2. Further action by PNAL

If at any time current or future airport operations appear likely within 3 years to exceed the planned sound exposure outside the Air Noise Boundary the following steps will be taken by PNAL:

- 2.1. Review the Noise Abatement procedures
- 2.2. Use commercial arrangements to promote the phasing out of noisy aircraft over an appropriate period
- 2.3. Place restrictions on excessively noisy aircraft (such as Chapter 2 jet powered aircraft) at night
- 2.4. Review the location of Noise Boundaries as per clause 4.5

C COMPLAINTS PROCEDURE

1. Purpose

The purpose of the complaints procedure shall be to provide the community with a mechanism to report specific instances of annoyance believed to have been caused by aircraft noise. It is also noted that while such procedure is an important element in a Noise Management Plan, it is generally accepted that

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the number of complaints in themselves are not an objective indicator of Aircraft annoyance in the airport environs.

2. Responsibilities

PNAL is responsible for the maintenance of, and reporting from, the noise complaints system.

3. Method

Complaints may be made to phone 351 4415 (including an answering machine for out of hours recording) where complainants can leave the following details:

- Name
- Contact Details
- Date / Time
- Nature of Complaint.

Staff manning the telephone are given appropriate training in complaints' answering procedures, and general background in airport, aircraft operations and noise issues.

PNAL shall investigate such complaints and undertake to provide complainants with a preliminary response within 5 working days, and a final written response within 20 working days.

PNAL will put in place arrangements with local aircraft operators and the Air Traffic Services providers and RNZAF for investigating complaints (provision of flight details and, where possible, the nature and cause of a noise incident).

The Airport Noise Liaison Committee also has an important role in relation to complaints, as indicated by its functions and activities (see Section B 1.2 above).

4. Actions Arising

PNAL shall provide six (6) monthly reports on complaints from Aircraft Noise to PNCC, MDC and the 'Airport Noise Liaison Committee'. Such reports shall include a log of complaints, actions arising and comment on any specific trends, and any appropriate noise mitigation measures that may be required.

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Palmerston North Airport

February 1998

V3.0

SCENARIO B2 (Optimistic)

Annual Growth Projections

Passengers (PAX) ⁽²⁾ = 3.00%

REGULAR PASSENGER SERVICE AIRCRAFT FORECAST

Aircraft Type	Seats	Actual 1992 ¹		Actual 1996 ¹		Noise Study 2004 ⁶		New Forecast 2007 ³		New Forecast 2047 ³	
		MOVEMENT	SEATS	MOVEMENT	SEATS	MOVEMENT	SEATS	MOVEMENT	SEATS	MOVEMENT	SEATS
Comsep	2	14,058	28,116	2,600	5,200	14,058	28,116	3,000	6,000	5,000	10,000
BE58p	2	2,548	5,096	4,200	8,400	2,548	5,096	5,000	10,000	7,500	15,000
CNA441	6	28	168	20	120	28	168	40	240	50	300
FA3	18	3,772	67,896	500	9,000	2,555	45,990	650	11,700	1,500	27,000
E110	16	3,070	49,120	5,200	83,200	0	0	6,800	108,800	13,000	208,000
SF34	33	40	1,320	4,974	164,142	2,920	96,360	5,000	165,000	6,000	198,000
DHC8	48	2,510	120,480	2,958	141,984	4,380	210,240	4,000	192,000	12,000	576,000
HS748	42	934	39,228	0	0	0	0	0	0	0	0
F27	44	61	2,684	0	0	0	0	0	0	0	0
ATR72	66	0	0	2,200	145,200	0	0	5,000	330,000	12,000	792,000
G11B	18	2	36	0	0	2	36	0	0	0	0
Lear35	14	24	336	8	112	72	1,008	12	168	20	280
B737/300	141	0	0	565	79,665	0	0	1,200	169,200	5,000	705,000
B737/200	113	2,815	318,095	68	7,684	365	41,245	300	33,900	0	0
BAe146	93	36	3,348	23	2,139	1,095	101,835	400	37,200	2,000	186,000
B767	240	0	0	0	0	0	0	50	12,000	1,000	240,000
Totals ⁽⁴⁾		29,898	635,923	23,316	646,846	28,023	530,094	31,452	1,076,208	65,070	2,957,580
Movements/Day ⁽⁴⁾		82		64		77		86		178	
Passengers Carried ⁽⁵⁾			305,245		328,462		416,086 ²		454,668 ²		1,483,145 ²
Load Factor ⁽⁷⁾			48.0%		50.8%		78.5%		42.2%		50.1%

- Notes : 1. - 1992 & 1997 data for Pax from records as are movements
 2 & 3. - Data based on input growths using (1+)ⁿ*n*base (base is 1996 actual)
 4. - Movements are 'arrival' plus 'departure'.
 5. - Passengers Carried are total (both Arrival plus Departure)
 6. - Data as Forecast in 1993 Noise Study by Palmerston North Airport Ltd (Tables 3.1 and 3.2)
 7. - Load Factor is average over 'arrivals' plus 'departures'

OTHER AIRCRAFT FORECAST

Aircraft Type	Actual 1992 ¹			Actual 1996 ¹			Noise Study 2004 ⁶			New Forecast 2007			New Forecast 2047		
	Arrival	Departure	Circuits	Arrival	Departure	Circuits	Arrival	Departure	Circuits	Arrival	Departure	Circuits	Arrival	Departure	Circuits
B737				4	0	4				8	0	8	20	0	20
CVR58-	327			510	505	5	0			600	600	0	800	800	5
FA3	238			921	914	7	296			1,000	1,000	0	1,500	1,500	7
F27	108			203	203	0	461			360	360	0	500	500	0
CNA441	21						26								
E110				61	28	104				100	100	0	200	200	104
DH8						24				200	200	0	300	300	24
GA															
COMSEP	1,614			532	7,202	1084	13,775	1,614		532	10,000	5,000	15,000	18,000	18,000
BEC58P	1,266			449	848	451	899	1,266		449	1,000	400	1,000	1,500	1,500
HS14	2							2							
F28								6							
MILITARY															
A4	35							35							
Aeromachi	74			519	372	489	267			600	400	600	600	600	600
Strikemaster	193							0							
B727	5			7	7	7	7	5		50	50	0	100	100	0
C130	1							1							
Airtrainer										900	900	0	1,200	1,200	
HELICOPTER															
Single piston	161			38				161		38					
Single Turbo	405			8	997	1079	177	405		18	1,000	1,000	200	2,000	2,000
Twin Turbo	5			2				5		2					
Totals	4,455			1,029	11,272	4,643	15,491	4,550	0	1,039	15,818	10,010	16,808	26,720	26,700
Movements/Day	12			3	31	13	42	12	0	3	43	27	46	73	54
Total Aircraft Movements					10,968 ⁽⁸⁾		46,897				11,178 ⁽⁸⁾		59,444		93,138
Grand Total Annual Movements =					40,866		70,213				39,201		90,896		158,208

- Note : Total aircraft movements are arrivals plus departures plus circuits
 8. Departures are assumed to equal arrivals

Scenario Notes

This Scenario is based on annual movement projections by PNAL as below:

Horiz on	General Scheduled Internation				Total
	Aviation	Domestic	al	Freight	
10 Year	74,800	23,000	1,500	500	99,800
20 Year	110,700	28,100	2,900	1,000	142,700
50 Year	120,000	35,000	4,000	1,500	160,500